AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) A system for processing objects comprising:

a plurality of object processing assemblies that are each configured to process said objects, each of said object processing assemblies comprising:

an object transfer mechanism having a plurality of object carriers, each of said object carriers being configured to hold at least one of said objects, said object transfer mechanism being configured to move said object carriers to transfer said objects to different processing positions; and

an object processing unit operatively associated with said transfer mechanism to process said objects transferred to said different processing positions by said object carriers of said object transfer mechanism; and

an object transfer device configured to unload an object from a first one of said plurality of object processing assemblies and to transfer the object to a second one of said plurality of object processing assemblies wherein the object transfer device directly transfers the object between the first one of said plurality of object processing assemblies and the second one of said plurality of object processing assemblies.

2. (Original) The system of claim 1 wherein said object transfer mechanism includes a carousel that can rotate to move said object carriers in a substantially circular path.

3. (Original) The system of claim 1 further comprising a second object transfer device situated between two selected object processing assemblies of said object processing assemblies to transfer said objects between said two selected object processing assemblies, said second object transfer device and said object transfer device being situated on opposite sides of said system.

4. (Original) The system of claim 1 wherein said processing unit is configured to perform a process selected from a group consisting of polishing, wet etching, electroplating, cleaning, thickness measuring, heating, coating and treating.

5. (Original) The system of claim 1 wherein said processing unit of one of said processing assemblies includes a plurality of sub-processing units to process some of said objects.

6. (Original) The system of claim 5 wherein at least one of said sub-processing units is configured to perform a process selected from a group consisting of polishing, wet etching, electroplating, cleaning, thickness measuring, heating, coating and treating.

7. (Original) The system of claim 5 wherein at least one of said sub-processing units is configured to process one of said objects when that object is placed on that sub-processing unit with the surface to be processed facing away from that sub-processing unit.

8. (Original) The system of claim 5 wherein at least one of said sub-processing units is configured to process one of said objects held by one of said object carriers associated with said sub-processing units.

9. (Previously Presented) The system of claim 1 further comprising an object processing station operatively associated with said object transfer device to process said objects placed on said object processing station.

10. (Original) The system of claim 9 wherein said object processing station is configured to process two or more of said objects in parallel.

11. (Original) The system of claim 9 wherein said object processing station is configured to perform a process selected from a group consisting of cleaning and thickness measuring.

12. (Currently Amended) A method of processing objects comprising:

processing said objects at processing positions of a first object processing assembly, including moving said objects to said processing positions of said first object processing assembly using a first object transfer mechanism of said first object processing assembly, said objects being supported by said first object transfer mechanism;

transferring said objects that have been processed by said first object processing assembly to a second object processing assembly wherein an object transfer device is employed for unloading said objects from the first object processing assembly and transferring said objects to the second object processing assembly <u>wherein said object transfer device directly transfers</u>

said objects between said first object processing assembly and said second object processing assembly; and

processing said objects at processing positions of said second object processing assembly, including moving said objects to said processing positions of said second object processing assembly using a second object transfer mechanism of said second object processing assembly, said objects being supported by said second object transfer mechanism.

13. (Original) The method of claim 12 where said step of moving said objects to said processing positions of said first object processing assembly includes rotating said first object transfer mechanism to move said objects to said processing positions of said first object processing assembly.

14. (Original) The method of claim 12 wherein at least one of said step of processing said objects at said processing positions of said first object processing assembly and said step of processing said objects at said processing positions of said second object processing assembly includes performing a process selected from a group consisting of polishing, wet etching, electroplating, cleaning, thickness measuring, heating, coating and treating.

15. (Original) The method of claim 12 further comprising a step of transferring said objects that have been processed by said second object processing assembly to a third object processing assembly, including unloading said objects from said second object processing assembly at a different processing position of said second object processing assembly from the processing position at which said objects were loaded onto said second processing assembly.

16. (Original) The method of claim 12 wherein at least one of said step of processing said object at said processing positions of said first object processing assembly and said step of processing said object at said processing positions of said second object processing assembly includes processing said objects at sub-processing units.

17. (Original) The method of claim 16 wherein said step of processing said objects at said sub-processing units includes performing a process selected from a group consisting of polishing, wet etching, electroplating, cleaning, thickness measuring, heating, coating and treating at one or more of said sub-processing units.

18. (Original) The method of claim 16 further comprising a step of placing one of said objects on one of said sub-processing units, including turning over that object such that the surface to be process is faced away from that sub-processing unit.

19. (Original) The method of claim 16 wherein said step of processing said objects at said sub-processing units includes holding one of said object while processing that object at one of said sub-processing units.

20. (Original) The method of claim 12 further comprising a step of transferring said objects that have been processed by said first object processing assembly to an object processing station to process said objects at said object processing station.

21. (Original) The method of claim 20 wherein said step of transferring said objects that have been processed by said first object processing assembly to said object processing station includes placing two or more of said objects on said object processing station to process two or more said objects in parallel.

22. (Original) The method of claim 20 wherein said step of transferring said objects that have been processed by said first object processing assembly to said object processing station includes performing a process selected from a group consisting of cleaning and thickness measuring.

23. (Currently Amended) A system for processing semiconductor objects comprising:

a first object processing assembly that is configured to process said semiconductor objects;

a second object processing assembly that is configured to further process said semiconductor objects; and

an object transfer device configured to unload said objects from the first object processing assembly and to transfer said objects to the second object processing assembly wherein the object transfer device directly transfers said semiconductor objects between said first object processing assembly and said second object processing assembly;[[,]]

each of said first and second object processing assemblies including:

an object transfer carousel having a plurality of object carriers, each of said object carriers being configured to hold at least one of said semiconductor objects, said object transfer carousel being configured to move said object carriers to transfer said semiconductor objects to different processing positions; and

an object processing unit operatively associated with said object transfer carousel to process said semiconductor objects transferred to said different processing positions by said object carriers of said object transfer carousel.

24. (Original) The system of claim 23 wherein said processing unit is configured to perform a semiconductor process selected from a group consisting of polishing, wet etching, electroplating, cleaning, thickness measuring, heating, coating and treating.

25. (Original) The system of claim 23 wherein said processing unit of one of said first and second processing assemblies includes a plurality of sub-processing units to process some of said semiconductor objects.

26. (Original) The system of claim 25 wherein each of said sub-processing units is configured to perform a semiconductor process selected from a group consisting of polishing, wet etching, electroplating, cleaning, thickness measuring, heating, coating and treating.

27. (Original) The system of claim 25 wherein at least one of said sub-processing units is configured to process one of said semiconductor objects when that semiconductor object is placed on that sub-processing unit with the surface to be processed facing away from that sub-processing unit.

28. (Previously Presented) The system of claim 23 further comprising an object processing station operatively associated with said object transfer device to process said semiconductor objects placed on said object processing station.

29. (Original) The system of claim 28 wherein said object processing station is configured to process two or more of said semiconductor objects in parallel.

30. (Original) The system of claim 28 wherein said object processing station is configured to perform a semiconductor process selected from a group consisting of cleaning and thickness measuring.